AMENDMENTS TO THE CLAIM

Please replace the pending claims with the following claim listing:

1-36. **(Canceled)**

37. **(Currently Amended)** A laser light source comprising a first laser for generating a laser beam of a wavelength λ_1, a second laser for generating a laser beam of a wavelength λ_2, and a nonlinear optical crystal that uses the laser beam of the wavelength λ_1 and the laser beam of the wavelength λ_2 as inputs and outputs a coherent beam having a wavelength λ_3 of a sum frequency that satisfies a relationship of $1/\lambda_1 + 1/\lambda_2 = 1/\lambda_3$, [[and]] comprising:

two polarization maintaining fibers coupled to outputs of the first and second lasers, respectively; and

a multiplexer for multiplexing outputs of the two polarization maintaining fibers and coupling a multiplexed output to the nonlinear optical crystal,

wherein the second laser is a semiconductor laser and the first laser oscillates in a multimode, and

wherein the wavelength λ_3 of a sum frequency is a wavelength of 589.3±2 nm that is equivalent to the sodium D line.

38. **(Previously Presented)** The laser light source according to claim 37, wherein, representing refractive indices of the wavelengths λ_1, λ_2, and λ_3 by n_1, n_2, and n_3, respectively, the nonlinear optical crystal has a periodically poled structure of a period Λ that satisfies

$$2\pi n_3/\lambda_3 = 2\pi n_1/\lambda_1 + 2\pi n_2/\lambda_2 + 2\pi n_2/\Lambda.$$

39. **(Previously Presented)** The laser light source according to claim 38, wherein, the nonlinear optical crystal has a waveguide structure.

40. **(Previously Presented)** The laser light source according to claim 37, wherein, the wavelength λ_1 is 976±10 nm and the wavelength λ_2 is 1485±20 nm.

41. **(Previously Presented)** The laser light source according to claim 37, wherein, the wavelength λ_1 is 1064±10 nm and the wavelength λ_2 is 1320±20 nm.

42. **(Previously Presented)** The laser light source according to claim 37, wherein, the wavelength λ_1 is 940±10 nm and the wavelength λ_2 is 1565±35 nm.

43. **(Previously Presented)** The laser light source according to claim 40, wherein the second laser for outputting a wavelength λ_2 = 1485±20 nm is a DFB laser.

44. **(Previously Presented)** The laser light source according to claim 41, wherein the second laser for outputting a wavelength λ_3 = 1320±20 nm is a DFB laser.

45. **(Previously Presented)** The laser light source according to claim 42, wherein the second laser for outputting a wavelength λ_2 = 1565±35 nm is a DFB laser.

46. **(Canceled)**

47. **(Currently Amended)** The laser light source according to claim [[46]] 37, wherein ~~the first and second excitation lasers are semiconductor lasers, and at least one of the two~~ the polarization maintaining ~~fibers~~ fiber coupled to the output of the first laser has a fiber Bragg grating.

48. **(Previously Presented)** The laser light source according to claim 47, wherein at least one of the first and second lasers has a first facet that is coupled to the polarization maintaining fiber and a second facet opposite to the first facet, the first facet being specified to have a reflectance of 2% or less and the second facet being specified to have a reflectance of 90% or more.

49. **(Currently Amended)** A laser light source comprising a first laser for generating a laser beam of a wavelength λ_1, a second laser for generating a laser beam of a wavelength λ_2, and a nonlinear optical crystal that uses the laser beam of the wavelength λ_1 and the laser beam of the wavelength λ_2 as inputs and outputs a coherent beam having a wavelength λ_3 of a sum frequency that satisfies a relationship of $1/\lambda_1 + 1/\lambda_2 = 1/\lambda_3$, [[and]] comprising:

two polarization maintaining fibers coupled to outputs of the first and second lasers, respectively; and

a multiplexer for multiplexing outputs of the two polarization maintaining fibers and coupling a multiplexed output to the nonlinear optical crystal,

wherein the second laser is a semiconductor laser and the first laser oscillates in a multimode, and

wherein the wavelength λ_1 is 940±10 nm, the wavelength λ_2 is 1320±20 nm, and the wavelength λ_3 of the sum frequency is a wavelength of 546.1±5.0 nm corresponding to a yellow range.

50. **(Previously Presented)** The laser light source according to claim 49, wherein, representing refractive indices at the wavelengths λ_1, λ_2, and λ_3 by n_1, n_2, and n_3, respectively, the nonlinear optical crystal has a periodically poled structure of a period Λ that satisfies

$$2\pi n_3/\lambda_3 = 2\pi n_1/\lambda_1 + 2\pi n_2/\lambda_2 + 2\pi n_2/\Lambda.$$

51. **(Previously Presented)** The laser light source according to claim 50, wherein the nonlinear optical crystal has a waveguide structure.

52. **(Previously Presented)** The laser light source according to claim 49, wherein the second laser is a DFB laser.

53. **(Canceled)**

54. **(Currently Amended)** The laser light source according to claim [[53]] 49, wherein ~~the first and second excitation lasers are semiconductor lasers, and at least one of the two~~ the polarization maintaining ~~fibers~~ fiber coupled to the output of the first laser has a fiber Bragg grating.

55. **(Previously Presented)** The laser light source according to claim 54, wherein at least one of the first and second lasers has a first facet that is coupled to the polarization maintaining fiber and a second facet opposite to the first facet, the first facet being specified to have a reflectance of 2% or less and the second facet being specified to have a reflectance of 90% or more.

56. **(Currently Amended)** A laser light source comprising a first laser for generating a laser beam of a wavelength λ_1, a second laser for generating a laser beam of a wavelength λ_2, and a nonlinear optical crystal that uses the laser beam of the wavelength λ_1 and the laser beam of the wavelength λ_2 as inputs and outputs a coherent beam having a wavelength λ_3 of a sum frequency that satisfies a relationship of $1/\lambda_1 + 1/\lambda_2 = 1/\lambda_3$, [[and]] comprising:

two polarization maintaining fibers coupled to outputs of the first and second lasers, respectively; and

a multiplexer for multiplexing outputs of the two polarization maintaining fibers and coupling a multiplexed output to the nonlinear optical crystal,

wherein the second laser is a semiconductor laser and the first laser oscillates in a multimode, and

wherein the wavelength λ_1 is 980±10 nm, the wavelength λ_2 is 1320±20 nm, and the wavelength λ_3 of the sum frequency is a wavelength of 560.0±5.0 nm corresponding to a yellow range.

57. **(Previously Presented)** The laser light source according to claim 56, wherein, representing refractive indices at the wavelengths λ_1, λ_2, and λ_3 by n_1, n_2, and n_3, respectively, the nonlinear optical crystal has a periodically poled structure of a period Λ that satisfies

$$2\pi n_3/\lambda_3 = 2\pi n_1/\lambda_1 + 2\pi n_2/\lambda_2 + 2\pi n_2/\Lambda.$$

58. **(Previously Presented)** The laser light source according to claim 57, wherein the nonlinear optical crystal has a waveguide structure.

59. **(Previously Presented)** The laser light source according to claim 56, wherein the second laser is a DFB laser.

60. **(Canceled)**

61. **(Currently Amended)** The laser light source according to claim [[60]] 56, wherein ~~the first and second excitation lasers are semiconductor lasers, and at least one of the two~~ the polarization maintaining ~~fibers~~ fiber coupled to the output of the first laser has a fiber Bragg grating.

62. **(Previously Presented)** The laser light source according to claim 61, wherein at least one of the first and second lasers has a first facet that is coupled to the polarization maintaining fiber and a second facet opposite to the first facet, the first facet being specified to have a reflectance of 2% or less and the second facet being specified to have a reflectance of 90% or more.

63. **(Currently Amended)** A laser light source comprising a first laser for generating a laser beam of a wavelength λ_1, a second laser for generating a laser beam of a wavelength λ_2, and a nonlinear optical crystal that uses the laser beam of the wavelength λ_1 and the laser beam of a wavelength λ_2 as inputs and outputs a coherent beam having a wavelength λ_3 of a sum frequency that satisfies a relationship of $1/\lambda_1 + 1/\lambda_2 = 1/\lambda_3$, [[and]] comprising:

two polarization maintaining fibers coupled to outputs of the first and second lasers, respectively; and

a multiplexer for multiplexing outputs of the two polarization maintaining fibers and coupling a multiplexed output to the nonlinear optical crystal,

wherein the second laser is a semiconductor laser and the first laser oscillates in a multimode, and

wherein the wavelength λ_1 is 1064±10 nm, the wavelength λ_2 is 1320±20 nm, and the wavelength λ_3 of the sum frequency is a wavelength of 585.0±5.0 nm corresponding to a yellow range.

64. **(Previously Presented)** The laser light source according to claims 63, wherein, representing refractive indices at the wavelengths λ_1, λ_2, and λ_3 by n_1, n_2, and n_3, respectively, the nonlinear optical crystal has a periodically poled structure of a period Λ that satisfies

$$2\pi n_3/\lambda_3 = 2\pi n_1/\lambda_1 + 2\pi n_2/\lambda_2 + 2\pi n_2/\Lambda.$$

65. **(Previously Presented)** The laser light source according to claim 64, wherein the nonlinear optical crystal has a waveguide structure.

66. **(Previously Presented)** The laser light source according to claim 63, wherein the second laser is a DFB laser.

67. **(Canceled)**

68. **(Currently Amended)** The laser light source according to claim [[67]] 63, wherein ~~the first and second excitation lasers are semiconductor lasers, and at least one of the two~~ the polarization maintaining ~~fibers~~ fiber coupled to the output of the first laser has a fiber Bragg grating.

69. **(Previously Presented)** The laser light source according to claim 68, wherein at least one of the first and second lasers has a first facet that is coupled to the polarization maintaining fiber and a second facet opposite to the first facet, the first facet being specified to have a reflectance of 2% or less and the second facet being specified to have a reflectance of 90% or more.

70. **(Currently Amended)** A laser light source comprising a first laser for generating a laser beam of a wavelength λ_1, a second laser for generating a laser beam of a wavelength λ_2, and a nonlinear optical crystal that uses the laser beam of the wavelength λ_1 and the laser beam of the wavelength λ_2 as inputs and outputs a coherent beam having a wavelength λ_3 of a sum frequency that satisfies a relationship of $1/\lambda_1 + 1/\lambda_2 = 1/\lambda_3$, [[and]] comprising:

two polarization maintaining fibers coupled to outputs of the first and second lasers, respectively; and

a multiplexer for multiplexing outputs of the two polarization maintaining fibers and coupling a multiplexed output to the nonlinear optical crystal,

wherein the second laser is a semiconductor laser and the first laser oscillates in a multimode, and

wherein the wavelength λ_1 is 940±10 nm, the wavelength λ_2 is 1550±30 nm, and the wavelength λ_3 of the sum frequency is a wavelength of 585.0±5.0 nm corresponding to a yellow range.

71. **(Previously Presented)** The laser light source according to claim 70, wherein, representing refractive indices at the wavelengths λ_1, λ_2, and λ_3 by n_1, n_2, and n_3, respectively, the nonlinear optical crystal has a periodically poled structure of a period Λ that satisfies

$$2\pi n_3/\lambda_3 = 2\pi n_1/\lambda_1 + 2\pi n_2/\lambda_2 + 2\pi n_2/\Lambda.$$

72. **(Previously Presented)** The laser light source according to claim 71, wherein the nonlinear optical crystal has a waveguide structure.

73. **(Previously Presented)** The laser light source according to claim 70, wherein the second laser is a DFB laser.

74. **(Canceled)**

75. **(Currently Amended)** The laser light source according to claim [[74]] 70, wherein ~~the first and second excitation lasers are semiconductor lasers, and at least one of the two~~ the polarization maintaining ~~fibers~~ fiber coupled to the output of the first laser has a fiber Bragg grating.

76. **(Previously Presented)** The laser light source according to claim 75, wherein at least one of the first and second lasers has a first facet that is coupled to the polarization maintaining fiber and a second facet opposite to the first facet, the first facet being specified to have a reflectance of 2% or less and the second facet being specified to have a reflectance of 90% or more.

77. **(New)** A laser light source comprising a first laser for generating a laser beam of a wavelength λ_1, a second laser for generating a laser beam of a wavelength λ_2, and a nonlinear optical crystal that uses the laser beam of the wavelength λ_1 and the laser beam of the wavelength λ_2 as inputs and outputs a coherent beam having a wavelength λ_3 of a sum frequency that satisfies a relationship of $1/\lambda_1 + 1/\lambda_2 = 1/\lambda_3$, comprising:

two polarization maintaining fibers coupled to outputs of the first and second lasers, respectively; and

a multiplexer for multiplexing outputs of the two polarization maintaining fibers and coupling a multiplexed output to the nonlinear optical crystal,

wherein the first laser is a semiconductor laser in a single mode oscillation,

the second laser is a DFB laser,

the polarization maintaining fiber coupled to the second laser has a fiber Bragg grating, and

the wavelength λ_1 is 976±10 nm, the wavelength λ_2 is 1485±20 nm, the wavelength λ_3 of a sum frequency is a wavelength of 589.3±2 nm that is equivalent to the sodium D line.

78. **(New)** The laser light source according to claim 77, wherein, representing refractive indices of the wavelengths λ_1, λ_2, and λ_3 by n_1, n_2, and n_3, respectively, the nonlinear optical crystal has a periodically poled structure of a period Λ that satisfies

$$2\pi n_3/\lambda_3 = 2\pi n_1/\lambda_1 + 2\pi n_2/\lambda_2 + 2\pi n_2/\Lambda.$$

79. **(New)** The laser light source according to claim 78, wherein, the nonlinear optical crystal has a waveguide structure.

80. **(New)** A laser light source comprising a first laser for generating a laser beam of a wavelength λ_1, a second laser for generating a laser beam of a wavelength λ_2, and a nonlinear optical crystal that uses the laser beam of the wavelength λ_1 and the laser beam of the wavelength λ_2 as inputs and outputs a coherent beam having a wavelength λ_3 of a sum frequency that satisfies a relationship of $1/\lambda_1 + 1/\lambda_2 = 1/\lambda_3$, comprising:

two polarization maintaining fibers coupled to outputs of the first and second lasers, respectively; and

a multiplexer for multiplexing outputs of the two polarization maintaining fibers and coupling a multiplexed output to the nonlinear optical crystal,

wherein the first laser is a semiconductor laser in a single mode oscillation,

the second laser is a DFB laser,

the polarization maintaining fiber coupled to the second laser has a fiber Bragg grating, and

the wavelength λ_1 is 1064 ± 10 nm, the wavelength λ_2 is 1320 ± 20 nm, the wavelength λ_3 of a sum frequency is a wavelength of 589.3 ± 2 nm that is equivalent to the sodium D line.

81. **(New)** The laser light source according to claim 80, wherein, representing refractive indices of the wavelengths λ_1, λ_2, and λ_3 by n_1, n_2, and n_3, respectively, the nonlinear optical crystal has a periodically poled structure of a period Λ that satisfies

$$2\pi n_3/\lambda_3 = 2\pi n_1/\lambda_1 + 2\pi n_2/\lambda_2 + 2\pi n_2/\Lambda.$$

82. **(New)** The laser light source according to claim 81, wherein, the nonlinear optical crystal has a waveguide structure.

83. **(New)** A laser light source comprising a first laser for generating a laser beam of a wavelength λ_1, a second laser for generating a laser beam of a wavelength λ_2, and a nonlinear optical crystal that uses the laser beam of the wavelength λ_1 and the laser beam of the wavelength λ_2 as inputs and outputs a coherent beam having a wavelength λ_3 of a sum frequency that satisfies a relationship of $1/\lambda_1 + 1/\lambda_2 = 1/\lambda_3$, comprising:

two polarization maintaining fibers coupled to outputs of the first and second lasers, respectively; and

a multiplexer for multiplexing outputs of the two polarization maintaining fibers and coupling a multiplexed output to the nonlinear optical crystal,

wherein the first laser is a semiconductor laser in a single mode oscillation,

the second laser is a DFB laser,

the polarization maintaining fiber coupled to the second laser has a fiber Bragg grating, and

the wavelength λ_1 is 940 ± 10 nm, the wavelength λ_2 is 1565 ± 35 nm, the wavelength λ_3 of a sum frequency is a wavelength of 589.3 ± 2 nm that is equivalent to the sodium D line.

84. **(New)** The laser light source according to claim 83, wherein, representing refractive indices of the wavelengths λ_1, λ_2, and λ_3 by n_1, n_2, and n_3, respectively, the nonlinear optical crystal has a periodically poled structure of a period Λ that satisfies

$$2\pi n_3/\lambda_3 = 2\pi n_1/\lambda_1 + 2\pi n_2/\lambda_2 + 2\pi n_2/\Lambda.$$

85. **(New)** The laser light source according to claim 84, wherein, the nonlinear optical crystal has a waveguide structure.

86. **(New)** A laser light source comprising a first laser for generating a laser beam of a wavelength λ_1, a second laser for generating a laser beam of a wavelength λ_2, and a nonlinear optical crystal that uses the laser beam of the wavelength λ_1 and the laser beam of the wavelength λ_2 as inputs and outputs a coherent beam having a wavelength λ_3 of a sum frequency that satisfies a relationship of $1/\lambda_1 + 1/\lambda_2 = 1/\lambda_3$, comprising:

two polarization maintaining fibers coupled to outputs of the first and second lasers, respectively; and

a multiplexer for multiplexing outputs of the two polarization maintaining fibers and coupling a multiplexed output to the nonlinear optical crystal,

wherein the first laser is a semiconductor laser in a single mode oscillation,

the second laser is a DFB laser,

the polarization maintaining fiber coupled to the second laser has a fiber Bragg grating, and

the wavelength λ_1 is 940±10 nm, the wavelength λ_2 is 1320±20 nm, and the wavelength λ_3 of the sum frequency is a wavelength of 546.1±5.0 nm corresponding to a yellow range.

87. **(New)** The laser light source according to claim 86, wherein, representing refractive indices of the wavelengths λ_1, λ_2, and λ_3 by n_1, n_2, and n_3, respectively, the nonlinear optical crystal has a periodically poled structure of a period Λ that satisfies

$$2\pi n_3/\lambda_3 = 2\pi n_1/\lambda_1 + 2\pi n_2/\lambda_2 + 2\pi n_2/\Lambda.$$

88. **(New)** The laser light source according to claim 87, wherein, the nonlinear optical crystal has a waveguide structure.

89. **(New)** A laser light source comprising a first laser for generating a laser beam of a wavelength λ_1, a second laser for generating a laser beam of a wavelength λ_2, and a nonlinear optical crystal that uses the laser beam of the wavelength λ_1 and the laser beam of the wavelength λ_2 as inputs and outputs a coherent beam having a wavelength λ_3 of a sum frequency that satisfies a relationship of $1/\lambda_1 + 1/\lambda_2 = 1/\lambda_3$, comprising:

two polarization maintaining fibers coupled to outputs of the first and second lasers, respectively; and

a multiplexer for multiplexing outputs of the two polarization maintaining fibers and coupling a multiplexed output to the nonlinear optical crystal,

wherein the first laser is a semiconductor laser in a single mode oscillation,

the second laser is a DFB laser,

the polarization maintaining fiber coupled to the second laser has a fiber Bragg grating, and

the wavelength λ_1 is 980±10 nm, the wavelength λ_2 is 1320±20 nm, and the wavelength λ_3 of the sum frequency is a wavelength of 560.0±5.0 nm corresponding to a yellow range.

90. **(New)** The laser light source according to claim 89, wherein, representing refractive indices of the wavelengths λ_1, λ_2, and λ_3 by n_1, n_2, and n_3, respectively, the nonlinear optical crystal has a periodically poled structure of a period Λ that satisfies

$$2\pi n_3/\lambda_3 = 2\pi n_1/\lambda_1 + 2\pi n_2/\lambda_2 + 2\pi n_2/\Lambda.$$

91. **(New)** The laser light source according to claim 90, wherein, the nonlinear optical crystal has a waveguide structure.

92. **(New)** A laser light source comprising a first laser for generating a laser beam of a wavelength λ_1, a second laser for generating a laser beam of a wavelength λ_2, and a nonlinear optical crystal that uses the laser beam of the wavelength λ_1 and the laser beam of the wavelength λ_2 as inputs and outputs a coherent beam having a wavelength λ_3 of a sum frequency that satisfies a relationship of $1/\lambda_1 + 1/\lambda_2 = 1/\lambda_3$, comprising:

two polarization maintaining fibers coupled to outputs of the first and second lasers, respectively; and

a multiplexer for multiplexing outputs of the two polarization maintaining fibers and coupling a multiplexed output to the nonlinear optical crystal,

wherein the first laser is a semiconductor laser in a single mode oscillation,

the second laser is a DFB laser,

the polarization maintaining fiber coupled to the second laser has a fiber Bragg grating, and

the wavelength λ_1 is 1064±10 nm, the wavelength λ_2 is 1320±20 nm, and the wavelength λ_3 of the sum frequency is a wavelength of 585.0±5.0 nm corresponding to a yellow range.

93. **(New)** The laser light source according to claim 92, wherein, representing refractive indices of the wavelengths λ_1, λ_2, and λ_3 by n_1, n_2, and n_3, respectively, the nonlinear optical crystal has a periodically poled structure of a period Λ that satisfies

$$2\pi n_3/\lambda_3 = 2\pi n_1/\lambda_1 + 2\pi n_2/\lambda_2 + 2\pi n_2/\Lambda.$$

94. **(New)** The laser light source according to claim 93, wherein, the nonlinear optical crystal has a waveguide structure.

95. **(New)** A laser light source comprising a first laser for generating a laser beam of a wavelength λ_1, a second laser for generating a laser beam of a wavelength λ_2, and a nonlinear optical crystal that uses the laser beam of the wavelength λ_1 and the laser beam of the wavelength λ_2 as inputs and outputs a coherent beam having a wavelength λ_3 of a sum frequency that satisfies a relationship of $1/\lambda_1 + 1/\lambda_2 = 1/\lambda_3$, comprising:

two polarization maintaining fibers coupled to outputs of the first and second lasers, respectively; and

a multiplexer for multiplexing outputs of the two polarization maintaining fibers and coupling a multiplexed output to the nonlinear optical crystal,

wherein the first laser is a semiconductor laser in a single mode oscillation,

the second laser is a DFB laser,

the polarization maintaining fiber coupled to the second laser has a fiber Bragg grating, and

the wavelength λ_1 is 940±10 nm, the wavelength λ_2 is 1550±30 nm, and the wavelength λ_3 of the sum frequency is a wavelength of 585.0±5.0 nm corresponding to a yellow range.

96. **(New)** The laser light source according to claim 95, wherein, representing refractive indices of the wavelengths λ_1, λ_2, and λ_3 by n_1, n_2, and n_3, respectively, the nonlinear optical crystal has a periodically poled structure of a period Λ that satisfies

$$2\pi n_3/\lambda_3 = 2\pi n_1/\lambda_1 + 2\pi n_2/\lambda_2 + 2\pi n_2/\Lambda.$$

97. **(New)** The laser light source according to claim 96, wherein, the nonlinear optical crystal has a waveguide structure.